AMENDMENT NO. 1 APRIL 2023

To

IS 14681 : 2021 AUTOMOTIVE VEHICLES — FUEL TANKS FOR TWO WHEELERS, THREE WHEELERS AND QUADRICYCLES

(*First Revision*)

(*Page* 1, *clause* **3.3**) — Insert the following new clause after the clause:

'**3.4 Nominal or Rated Capacity of Tank** — It is the nominal tank capacity as declared by the manufacturer.'

(*Page* 2, *clause* **5.8.1**) — Substitute the following for the existing clause:

'**5.8.1** For the purpose of **5.8**, a vehicle is deemed to have a passenger or other compartment integral with it if it is fitted with safety glazing, side doors, a rear door, side pillars and/or a roof creating an enclosed or partly enclosed compartment. The testing agency shall clearly justify the judgment criteria in the test report.'

(*Page* 2, *clause* **5.9**) — Substitute the following for the existing clause:

'**5.9** The fuel filler port shall not be situated in the passenger compartment, luggage compartment or engine compartment, if any.

NOTE — This condition shall be deemed to be met, if the fuel filler port is accessible from outside of the vehicle during fuel filling in the tank.'

(*Page* 2, *clause* **5.9.1**) — Substitute the following for the existing clause:

'**5.9.1** Further to point **5.8.1** a vehicle is deemed to have an engine compartment or a luggage compartment if it is fitted with side panels in combination with a bonnet/hood lid and/or a boot/trunk lid creating an enclosed or partly enclosed compartment. The testing agency shall clearly justify the judgment criteria in the test report.'

(*Page* 2, *clause* **5.10**) — Substitute the following for the existing clause:

'**5.10** Fuel tanks shall pass the leak-tightness tests carried out with an internal pressure equal to twice the relative service pressure (design pressure) or an overpressure of 30 kPa, whichever is higher, as described in points **6.2**. Any orifices may be blocked for the purpose of this test. The fuel tank shall not crack or leak during the test, but may remain permanently deformed.'

(*Page* 2, clause **5.11**) — Substitute the following for the existing clause:

'**5.11** Fuel tanks made of materials other than metal shall be subject to the tests in accordance with points **7.1** to **7.6** in addition to those described in points **6.1** to **6.1.4**.'

(*Page* 2, *clause* **6.1.5**) — Substitute the following for the existing clause:

'**6.1.5** Fuel tank leakage test is exempted for fuel tanks not having a vent hole, and venting is through a one way valve.

NOTE — Fuel tank assembly, if provided with suitable arrangements for example and not limited to fuel recirculation system in close looped design (for example, canister), shall be detailed during application by the manufacturer. Subject to availability of competent system test agency shall exempt tanks from overturn test.'

(*Page* 3, *clause* **7.3.3**) — Substitute the following for the existing clause:

'**7.3.3** The tank shall remain closed and pressurized for a period of not less than 5 h at an ambient temperature of 53 °C ± 2 °C.'

(*Page* 4, *clause* **7.4.1.1**) — Substitute the following for the existing clause:

'**7.4.1.1** Six tensile-test pieces of approximately the same thickness shall be taken from the flat pieces or nearly flat faces of the completely new fuel tank. Their tensile strength and elastic limits shall be established at 23 °C ± 2 °C at an elongation rate of 50 mm/min. The obtained values shall then be compared with the tensile strength and elasticity values obtained by similar tests carried out using a fuel tank which has undergone the permeability test. The material shall be considered to be acceptable if the tensile strength differs by no more than 25 percent.'

(*Page* 4, *clause* **8.3**) — Substitute the following for the existing clause:

'**8.3** If the type approval already granted to a vehicle model cannot be extended to variant/new model due to design change mentioned in **8.1**(a) and **8.1**(b) only the checks/tests relevant to that design change shall be carried out and extension shall be granted if these checks/tests are satisfactory.

Following guidelines may be followed:

a) Design change checks/tests to be conducted

   1) Material of fuel tank:

      i) In case of plastic (non-metallic fuel tank), all tests as per **6.2** and **7**, as applicable, and
      ii) In case of metallic tank test as per **6.2**;

   2) Mounting arrangement of fuel tank — Shock test as per **7.2**, if applicable;

   3) Arrangement of fuel filling system — Check as per **6.1** and **6.2**;

   4) Fuel tank of a model type approved is relocated or used at a relocated position in other variants/new model — If tank is made of non-metallic material tests as per **7.2** and **7.3** as applicable. If tank is made of metal no tests are required;

   5) Change in size and shape of fuel tank — tests as per **6.1**, **6.2**, **7.2** and **7.3** to be repeated; and

   6) Change in nominal thickness of fuel tank:

      i) For reduction in thickness for metallic tank tests as per **6.2**;
      ii) For reduction in thickness for non-metallic tank reduction in thickness tests as per **6.2**, and **7** as applicable; and
      iii) For increase in nominal tank thickness no test required for extending test results of earlier test for metallic and non-metallic tanks.'

(TED 06)

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